

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Assistant Commissioner for Patents
United States Patent and Trademark
Office
Box PCT
Washington, D.C.20231
ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing (day/month/year) 08 May 2000 (08.05.00)	
International application No. PCT/NZ99/00156	Applicant's or agent's file reference J1210399/142
International filing date (day/month/year) 16 September 1999 (16.09.99)	Priority date (day/month/year) 16 September 1998 (16.09.98)
Applicant BENT, Roger	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:
03 April 2000 (03.04.00)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Juan Cruz Telephone No.: (41-22) 338.83.38
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INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference JL210399/142	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/NZ 99/00156	International filing date (day/month/year) 16 September 1999	(Earliest) Priority Date (day/month/year) 16 September 1998
Applicant DSTD CONSULTANTS LIMITED et al.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (See Box II).

4. With regard to the title, ☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

METHOD AND APPARATUS FOR EDITING A BROADCAST PROGRAM

5. With regard to the abstract, ☒ the text is approved as submitted by the applicant

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No. 1

☒ as suggested by the applicant.

☐ None of the figures

☐ because the applicant failed to suggest a figure

☐ because this figure better characterizes the invention

INTERNATIONAL SEARCH REPORT

International application No.

PCT/NZ 99/00156

A. CLASSIFICATION OF SUBJECT MATTERInt Cl⁶: G11B 27/00; H04N 5/275, 5/76

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC G06F 17/60, 19/00; G11B 27/00, H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
 AU: IPC AS ABOVE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 WPAT: edit or cut or change or modify and program or segment and code

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 97/23996 A1(BLOCK, Robert) 3 July 1997 See page 2, line 16 - page 4, line 2; fig 1	1,2,4-12,14-20
X	US 4,774,600 A (BAUMEISTER) 27 September 1988 See the whole document	1,2,7-12,17-20
X	US 4,750,213 A (NOVAK) 07 June 1988 See the whole document	1,2,4-6,11,12,14-16

☒ Further documents are listed in the
 continuation of Box C

☒ See patent family annex

<p>* Special categories of cited documents:</p> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent but published on or after the international filing date</p> <p>"I" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p>		<p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</p> <p>"&" document member of the same patent family</p>
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Date of the actual completion of the international search
 05 January 2000

Date of mailing of the international search report

10 JAN 2000

Name and mailing address of the ISA/AU
 AUSTRALIAN PATENT OFFICE
 PO BOX 200, WODEN ACT. 2606, AUSTRALIA
 E-mail address: pct@ipaustalia.gov.au
 Facsimile No. (02) 6285 3929

Authorized officer

S. J. Samuel
SERINEL SAMUEL
 Telephone No.: (02) 6283 2382

INTERNATIONAL SEARCH REPORT

International application No.

PCT/NZ 99/00156

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4,520,404 (VON KOHORN) 28 May 1985 See the whole document	1,2,4,5,11,12, 14,15
A	US 4,420,769 A (NOVAK) 13 December 1983 See the whole document	1-20

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.
PCT/NZ 99/00156


This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report				Patent Family Member			
WO	97/23996	AU	14234/97	EP	870402	CN	1214173
							END OF ANNEX

PATENT COOPERATION TREATY
PCT
INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference JI210399/142	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416).
International application No. PCT/NZ99/00156	International filing date (<i>day/month/year</i>) 16 September 1999	Priority Date (<i>day/month/year</i>) 16 September 1998
International Patent Classification (IPC) or national classification and IPC Int. Cl. ⁷ G11B 27/00; H04N 5/275, 5/76		
Applicant DSTD Consultants Limited et al.		

1.	This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.																								
2.	This REPORT consists of a total of 3 sheets, including this cover sheet. <input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). These annexes consist of a total of 8 sheet(s).																								
3.	This report contains indications relating to the following items: <table style="width: 100%; border: none;"><tr><td style="width: 5%;">I</td><td style="width: 5%; text-align: center;"><input checked="" type="checkbox"/></td><td>Basis of the report</td></tr><tr><td>II</td><td style="text-align: center;"><input type="checkbox"/></td><td>Priority</td></tr><tr><td>III</td><td style="text-align: center;"><input type="checkbox"/></td><td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td></tr><tr><td>IV</td><td style="text-align: center;"><input type="checkbox"/></td><td>Lack of unity of invention</td></tr><tr><td>V</td><td style="text-align: center;"><input checked="" type="checkbox"/></td><td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability, citations and explanations supporting such statement</td></tr><tr><td>VI</td><td style="text-align: center;"><input type="checkbox"/></td><td>Certain documents cited</td></tr><tr><td>VII</td><td style="text-align: center;"><input type="checkbox"/></td><td>Certain defects in the international application</td></tr><tr><td>VIII</td><td style="text-align: center;"><input type="checkbox"/></td><td>Certain observations on the international application</td></tr></table>	I	<input checked="" type="checkbox"/>	Basis of the report	II	<input type="checkbox"/>	Priority	III	<input type="checkbox"/>	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	IV	<input type="checkbox"/>	Lack of unity of invention	V	<input checked="" type="checkbox"/>	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability, citations and explanations supporting such statement	VI	<input type="checkbox"/>	Certain documents cited	VII	<input type="checkbox"/>	Certain defects in the international application	VIII	<input type="checkbox"/>	Certain observations on the international application
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Date of submission of the demand 3 April 2000	Date of completion of the report 17 July 2000
Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustalia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer  SERINEL SAMUEL Telephone No. (02) 6283 2382

I. Basis of the report

1. With regard to the elements of the international application:*

☐ the international application as originally filed.☒ the description, pages 1,2,7-28 as originally filed,
pages , filed with the demand,
pages 3-6, received on 13 July 2000 with the letter of 13 July 2000☒ the claims, pages , as originally filed,
pages , as amended (together with any statement) under Article 19,
pages , filed with the demand,
pages 29-32, received on 13 July 2000 with the letter of 13 July 2000☒ the drawings, pages 1/9 - 9/9, as originally filed,
pages , filed with the demand,
pages , received on with the letter of☐ the sequence listing part of the description:
pages , as originally filed
pages , filed with the demand
pages , received on with the letter of

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).☐ the language of publication of the international application (under Rule 48.3(b)).☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, was on the basis of the sequence listing:

☐ contained in the international application in written form.☐ filed together with the international application in computer readable form.☐ furnished subsequently to this Authority in written form.☐ furnished subsequently to this Authority in computer readable form.☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished4. ☐ The amendments have resulted in the cancellation of:☐ the description, pages☐ the claims, Nos.☐ the drawings, sheets/fig.5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims 1-20	YES
	Claims nil	NO
Inventive step (IS)	Claims 1-20	YES
	Claims nil	NO
Industrial applicability (IA)	Claims 1-20	YES
	Claims nil	NO

2. Citations and explanations (Rule 70.7)

The invention relates to a method and apparatus for automatically tailoring programs to individual preferences, including editing undesired contents from a television or a radio broadcast. The method involves generating a plurality of control code being indicative of program content contained in a respective program segment and generating a control code time marker for each control code to identify the undesired program segment.

Cited Documents:

- D1 WO 97/23996
- D2 US 4774 600
- D3 US 4750213
- D4 US 4520404

These cited documents do not disclose either singularly and/or in combination the subject matter of the invention defined in the claims.

Therefore, the invention according to claims 1-20 has novelty. It cannot be considered obvious for a person skilled in the art, to bring about a method or an apparatus according to the claims, in view of the cited documents. The invention therefore show inventive step. The invention also has industrial applicability.

PATENT COOPERATION TREATY
PCT
INTERNATIONAL PRELIMINARY EXAMINATION REPORT

REC'D 03 AUG 2000

WIPO

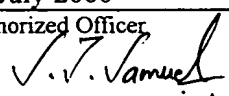
PCT

(PCT Article 36 and Rule 70)

16

Applicant's or agent's file reference JI210399/142	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416).
International application No. PCT/NZ99/00156	International filing date (<i>day/month/year</i>) 16 September 1999	Priority Date (<i>day/month/year</i>) 16 September 1998
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Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustalia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer  SERINEL SAMUEL Telephone No. (02) 6283 2382

I. Basis of the report**1. With regard to the elements of the international application:***

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- ☒ the description, pages 1,2,7-28 as originally filed,
pages , filed with the demand,
pages 3-6, received on 13 July 2000 with the letter of 13 July 2000
- ☒ the claims, pages , as originally filed,
pages , as amended (together with any statement) under Article 19,
pages , filed with the demand,
pages 29-32, received on 13 July 2000 with the letter of 13 July 2000
- ☒ the drawings, pages 1/9 - 9/9, as originally filed,
pages , filed with the demand,
pages , received on with the letter of
- ☐ the sequence listing part of the description:
pages , as originally filed
pages , filed with the demand
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4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/fig.

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims 1-20	YES
	Claims nil	NO
Inventive step (IS)	Claims 1-20	YES
	Claims nil	NO
Industrial applicability (IA)	Claims 1-20	YES
	Claims nil	NO

2. Citations and explanations (Rule 70.7)

The invention relates to a method and apparatus for automatically tailoring programs to individual preferences, including editing undesired contents from a television or a radio broadcast. The method involves generating a plurality of control code being indicative of program content contained in a respective program segment and generating a control code time marker for each control code to identify the undesired program segment.

Cited Documents:

- D1 WO 97/23996
- D2 US 4774 600
- D3 US 4750213
- D4 US 4520404

These cited documents do not disclose either singularly and/or in combination the subject matter of the invention defined in the claims.

Therefore, the invention according to claims 1-20 has novelty. It cannot be considered obvious for a person skilled in the art, to bring about a method or an apparatus according to the claims, in view of the cited documents. The invention therefore show inventive step. The invention also has industrial applicability.

DISCLOSURE OF THE INVENTION

In accordance with a first aspect of the present invention there is provided a method of editing a program, the program comprising a plurality of adjacent program segments which run in a program sequence and a plurality of program time markers each associated with a respective program segment, the program including at least one undesired program segment interleaved between a pair of non-adjacent desired program segments, the method comprising:

generating a plurality of control codes, each control code being indicative of program content contained in a respective program segment;

generating a control code time marker for each control code;

identifying the undesired program segment(s) by comparing the control codes with previously stored personal preference data to identify an undesired control code, and locating a program segment having a program time marker corresponding with the control code time marker of the undesired control code; and

generating an edited program sequence by skipping the identified undesired program segment(s) and arranging the pair of desired program segments such that they lie adjacently in the edited program sequence.

The present invention provides a method and apparatus for automatically tailoring programs to individual preferences, including editing undesired content such as political reporting, medical operations, violence, nudity, sex, obscene language and advertisements from a program, such as a television or radio broadcast.

Programs may be categorised as suitable for specific age ranges or for individuals with certain psychological traits that are easily disturbed by certain program material, although a viewer can modify these. The categories involved cover a multitude of subject matter, only a few of the possible fields are covered here. The rapid growth of the communications industry will involve the greater availability of potentially harmful and/or

offensive material, necessitating a uniform system of control for both standards and best use of available viewing time.

5 The program may be made up of video data, audio data, or a combination of the two. The program may be broadcast at a scheduled start time on a mass broadcast medium (eg. a conventional TV transmitter, cable or satellite network) to a plurality of viewers. Alternatively the program may be transmitted to a single viewer as part of a "video on demand" system, or over the internet. Alternatively the program may be provided on a
10 recording medium (eg. a DVD) which is physically delivered to the viewer.

Typically the desired and undesired program segment(s) are stored, and the edited program sequence is compiled from the stored program segment(s). This is particularly advantageous for a mass broadcast TV
15 program with inserted advertisements (which the TV station does not want removed). The entire program is stored during the scheduled broadcast, giving time for the control codes to be generated (identifying the inserted advertisements). At a later time the edited program sequence is compiled from the recorded program. In this case, the program is
20 preferably stored with program time markers which are compared with control code time markers to identify undesired program segments.

Alternatively the edited program sequence may be generated "on the fly" without storing the undesired program segments. For example, the
25 program may be provided to the viewer with embedded time codes (either inserted into a program being transmitted to the user, or stored on a DVD along with the program data). The viewer's system then selects only desired program segments for viewing or recording.

30 The control codes may be provided with the program on a previously recorded DVD. Alternatively the control codes are generated at a remote control code facility and the edited program sequence is generated at a

local station, the method further comprising transmitting the control codes from the control code facility to the local station.

5 After the edited program sequence has been generated, the sequence (eg: a list of program time markers) may be stored. An edited program (ie. a plurality of program segments which run in the edited program sequence) can then be stored for later viewing, or viewed immediately.

10 According to a second aspect of the present invention there is provided apparatus for editing a program, the program comprising a plurality of adjacent program segments which run in a program sequence and a plurality of program time markers each associated with a respective program segment, the program including at least one undesired program segment interleaved between a pair of non-adjacent desired program segments, the apparatus comprising:

15 means for generating a plurality of control codes, each control code being indicative of program content contained in a respective program segment;

20 means for generating a control code time marker for each control code;

25 means for identifying the undesired program segment(s) by comparing the control codes with previously stored personal preference data to identify an undesired control code, segment having a program time marker corresponding with the control code time marker of the undesired control code; and

30 means for generating an edited program sequence by skipping the identified undesired program segment(s) and arranging the pair of desired program segments such that they lie adjacently in the edited program sequence.

For restricted adult content, the apparatus may require entering a security code, password or PIN number before viewing a program.

The control codes are preferably information on type of program on an ongoing basis, identifying content related to many different categories. The control codes may also identify country, or region of a country where program was broadcast, TV channel, or station, where program was broadcast and type of content along with other categories to identify material being recorded.

The system and method of the present invention may be built into a new system, integrated into an existing system, or provided by an external stand-alone unit.

The recording and playback means may be incorporated within a single unit or may be separate units enabling programs to be played while another program is simultaneously recorded or for multiple programs to be simultaneously played or recorded. This also allows the accommodation of multiple individual preferences. The recording media may be magnetic recording media such as disk drive, a writeable or re-writeable DVD or CD-ROM, RAM or other suitable random access storage media.

BRIEF DESCRIPTION OF DRAWINGS

An example of the present invention will now be described with reference to the accompanying drawings, in which:

- Figure 1 is a diagram of the main system elements.
Figure 2 show a local station in detail.
Figure 3 shows a remote station in detail.
Figure 4 shows a code production facility in detail.
Figure 5 shoes a user validation system.
Figure 6 shows a machine check system.
Figure 7 is a process diagram showing the recording of a program signal into memory.

AMENDED SHEET
IPEA/AU

WHAT IS CLAIMED IS:

1. A method of editing a program, the program comprising a plurality of adjacent program segments which run in a program sequence and a
5 plurality of program time markers each associated with a respective program segment, the program including at least one undesired program segment interleaved between a pair of non-adjacent desired program segments, the method comprising:

10 generating a plurality of control codes, each control code being indicative of program content contained in a respective program segment;

generating a control code time marker for each control code;

15 identifying the undesired program segment(s) by comparing the control codes with previously stored personal preference data to identify an undesired control code, and locating a program segment having a program time marker corresponding with the control code time marker of the undesired control code; and

20 generating an edited program sequence by skipping the identified undesired program segment(s) and arranging the pair of desired program segments such that they lie adjacently in the edited program sequence.

2. A method according to claim 1 further comprising storing the desired
25 and undesired program segment(s), and compiling the edited program sequence from the stored program segment(s).

3. A method according to claim 2 further comprising:
generating and storing the program time markers.

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4. A method according to any one of the preceding claims wherein the control codes are generated at a remote control code facility and the edited program sequence is generated at a local station, the method

further comprising transmitting the control codes from the control code facility to the local station.

5 5. A method according to claim 4 wherein the program is broadcast on a mass broadcast medium and received substantially simultaneously from the mass broadcast medium by the remote control code facility and the local station.

10 6. A method according to claim 4 further comprising transmitting the program from the remote control code facility to the editing station.

15 7. A method according to any one of the preceding claims further comprising storing an edited program comprising a plurality of program segments which run in the edited program sequence.

8. A method according to any one of the preceding claims further comprising displaying an edited program comprising a plurality of program segments which run in the edited program sequence.

20 9. A method according to any one of the preceding claims further comprising storing edited program sequence data which is indicative of the desired program segments which make up the edited program sequence.

25 10. A method according to claim 9 and claim 3 wherein the edited program sequence data comprises a list of program time markers.

30 11. Apparatus for editing a program, the program comprising a plurality of adjacent program segments which run in a program sequence and a plurality of program time markers each associated with a respective program segment, the program including at least one undesired program segment interleaved between a pair of non-adjacent desired program segments, the method comprising:

means for generating a plurality of control codes, each control code being indicative of program content contained in a respective program segment;

5 means for generating a control code time marker for each control code;

 means for identifying the undesired program segment(s) by comparing the control codes with previously stored personal preference data to identify an undesired control code, and locating a program segment having a program time marker corresponding with the control code time marker of the undesired control code; and

 means for generating an edited program sequence by skipping the identified undesired program segment(s) and arranging the pair of desired program segments such that they lie adjacently in the edited program sequence.

12. Apparatus according to claim 11 further comprising a memory for storing the desired and undesired program segments, and means for compiling the edited program sequence from the stored program segments.

13. Apparatus according to claim 12 further comprising:
 means for generating and storing the program time markers.

14. Apparatus according to any one of the claims 11 to 13 wherein the control codes are generated at a remote control code facility and the edited program sequence is generated at a local station, the apparatus further comprising means for transmitting the control codes from the control code facility to the local station.

15. Apparatus according to claim 14 wherein the remote code control facility and the local station each further comprise means for receiving the program from a mass broadcast medium.

5 16. Apparatus according to claim 14 further comprising means for transmitting the program from the remote control code facility to the editing station.

10 17. Apparatus according to any one of claims 11 to 16 further comprising a memory for storing an edited program comprising a plurality of program segments which run in the edited program sequence.

15 18. Apparatus according to any one of claims 11 to 17 further comprising a display for displaying an edited program comprising a plurality of program segments which run in the edited program sequence.

20 19. Apparatus according to any one of claims 11 to 18 further comprising a memory for storing edited program sequence data which is indicative of the desired program segments which make up the edited program sequence.

20. Apparatus according to claim 19 wherein the edited program sequence data comprises a list of program time markers.

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